

REMARKS/ARGUMENTS

Claims 1-73 remain in this application. Reconsideration and reexamination of pending claims 1-73 is respectfully requested.

In response to the Final Office Action, the Examiner's claim rejections have been considered. Applicants respectfully traverse all rejections regarding all pending claims and earnestly solicit allowance of these claims.

Applicant gratefully acknowledges the time and attention afforded by Examiner Angebrannt in connection with an August 22, 2008 telephonic interview conducted with inventor Dr. Christophe Moser.

Applicant noted that the volume holographic grating described in the specification of the current application is not of the waveguide type. The volume holographic element freely diffracts light without the constraints of a waveguide. The specification of the current application supports a volume holographic grating (VHG) that is dissociated from waveguiding:

“[0011] There are many applications that require a bulk medium and hence are not able to use FBGs...”. This statement suggests that FBGs cannot be used for bulk application i.e. free space applications i.e without waveguiding, as it would be obvious to one ordinary skilled in the Art.

“[0027]There is an advantage of using a VHG, namely, the recording medium for the grating is a bulk medium unlike single mode fiber found in FBG...”. This statement unequivocally dissociates a VHG with single mode fiber FBG by defining that a single mode fiber FBG is not made out of a bulk medium with the understanding of [0011] that a bulk medium is a medium in which light propagates in free space without waveguiding and that a single mode fiber is a medium in which light propagates by waveguiding.

1. Claim Rejections under 35 U.S.C. § 102(b)

Claims 38,42,45,46,48,49,61,62 and 66-73 are rejected by the Examiner under 35 U.S.C. § 102(b) as being fully anticipated by Lemaire et. Al (US 6,147,341).

Applicant respectfully disagrees.

From the arguments above made during the telephonic interview with the Examiner, the VHG is dissociated from employing waveguiding. Although the applicant agrees with the Examiner that in the propagation direction of the FBG i.e the length of the FBG, the medium is considered “thick” satisfying one of the conditions for a volume grating, the FBG utilizes waveguiding by virtue of the FBG being written in a single mode fiber in Lemaire et al. as opposed to a VHG.

Applicant has amended the independent claim 38 to specifically recite a VHG this is not formed in a waveguide article.

Applicant has amended the claim language that recite “reflection grating filter”, “transmission grating filter“ by “reflection grating” and “transmission grating”.

The grating element used in the rejection is different from the element used in the present invention and therefore the teachings of the present invention cannot be rejected under 35 U.S.C. 102(b).

Claims 42,45,46,48,49,61,62 and 66-73 are dependent claims based on independent claim 38. Inasmuch as claims 38 is allowable, these dependent claims are allowable by definition.

2. Claim Rejections under 35 U.S.C. § 102(e)

Claims 1-5, 8-12, 19,22-33,38-42,45-49,56 and 59-69 are rejected by the Examiner under 35 U.S.C. § 102(e) as being fully anticipated by Sullivan (US 6,621'957).

Claims 38,39,42,45-50, 54 and 55 are rejected under 35 U.S.C 102(e) as being fully anticipated by Myers et al., (US-2003/0210863).

Applicant respectfully disagrees.

Sullivan et al. disclose a mechanical apparatus positioned around a fiber for the purpose of yielding an athermal Bragg grating.

Following the same arguments that are in paragraph 1, fiber gratings are waveguided whereas volume holographic gratings are not.

Applicant has amended the independent claim 1 to specifically recite a VHG this is not formed in a waveguide article.

The grating element used in the rejection is different from the element used in the present invention and therefore the teachings of the present invention cannot be rejected under 35 U.S.C. 102(e).

The functional recitation of independent claim 1 has been amended.

Claims 2-5, 8-12, 19,22-33, are dependent claims based on independent claim 1 .

Inasmuch as claims 1 is allowable, these dependent claims are allowable by definition.

Claims 39-42,45-50,54-56 and 59-69, are dependent claims based on independent claim 38. Inasmuch as claims 1 is allowable, these dependent claims are allowable by definition.

3. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-12,19,22-49, 56 and 59-73 are rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Sullivan et al. (US 6,621'957), in view of Glenn et al. (US 4,807'950), Glenn et al. (US 5,388,173) or Laming et al. (US 6,169,829).

Claims 1-12, 19-49 and 56-73 are rejected by the Examiner under 35 U.S.C. § 103(a) as being unpatentable over Sullivan et al. (US 6,621'957) , combined with either Glenn et al. (US 4,807'950) , Glenn et al. (US 5,388,173) or Laming et al. (US 6,169,829), further in view of Fells et al. (US 6,363,187) .

Claims 38,39,42 and 45-55 are rejected under 35 U.S.C 103(a) as being fully unpatentable over Myers et al., (US-2003/0210863).

Claims 1-18 and 38-55 are rejected under 35 U.S.C 103(a) as being unpatentable over Myers et al. (US-2003/0210863) in view of Sullivan (US 6,621'957) combined with Glenn et al. (US 4,807'950), Glenn et al. (US 5,388,173) or Laming et al. (US 6,169,829).

Claims 1-5, 8-12, 19, 22-33, 38-42, 45-49, 56 are rejected under 35 U.S.C 103(a) as being fully unpatentable over Sullivan et al., (US 6,621'957), in view of Paek et al. (US 6,568,220).

Claims 1-12, 19, 22-49, 56 and 59-73 are rejected under 35 U.S.C 103(a) as being unpatentable over Sullivan (US 6,621'957) in view of Glenn et al. (US 4,807'950), Glenn et al. (US 5,388,173) or Laming et al. (US 6,169,829) further in view of Paek et al. (US 6,568,220).

Claims 1-12, 19-49, and 56-73 are rejected under 35 U.S.C 103(a) as being unpatentable over Sullivan (US 6,621'957) combined with either Glenn et al. (US 4,807'950), Glenn et al. (US 5,388,173) or Laming et al. (US 6,169,829) combined with Fells et al (US 6,363,187) further in view of Paek et al. (US 6,568,220).

Claims 1-18 and 38-55 are rejected under 35 U.S.C 103(a) as being unpatentable over Myers et al. (US 2003/0210863) in view of Sullivan et al. (US 6,621'957) combined with Glenn et al. (US 4,807'950), Glenn et al. (US 5,388,173) or Laming et al. (US 6,169,829) further in view of Paek et al. (US 6,568,220).

Following the same arguments that are in paragraph 1, fiber gratings are waveguided whereas volume holographic gratings are not.

The grating element used in the rejection is different from the element used in the present invention and therefore the teachings of the present invention cannot be rejected under 35 U.S.C. 103(a).

Claims 2-37 are dependent claims based on independent claim 1. Inasmuch as claims 1 is allowable, these dependent claims are allowable by definition.

Claims 38-73, are dependent claims based on independent claim 38. Inasmuch as claim 1 is allowable, these dependent claims are allowable by definition.

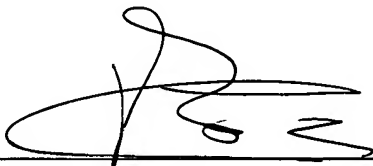
CONCLUSION

Applicants have made an earnest and *bona fide* effort to clarify the issues before the Examiner and to place this case in condition for allowance. Reconsideration and allowance of all of claims 1-73 is believed to be in order, and a timely Notice of Allowance to this effect is respectfully requested.

Should the Examiner have any questions concerning the foregoing, the Examiner is invited to telephone Dr. Christophe Moser at (626) 357-9600. He can normally be reached Monday through Friday from about 9:00 AM to 6:00 PM Pacific Time.

Respectfully submitted,

Date: August 28, 2008



Dr. Christophe Moser